

AMENDMENT

In the Claims:

The following listing reflects amendments to the claims and replaces all prior versions and listings of claims in this application.

1-25. (Canceled)

26. (Currently amended) A system comprising a source of solvent, and an array having a plurality of micro-perforators, wherein each of said micro-perforators is formed of a solid dissolvable matrix that dissolves upon contact with the solvent over a time interval of between a few tens of seconds and a few hours after the micro-perforator has been inserted into a patient's body, to form a channel for delivering a substance into tissue by diffusion, wherein the source of solvent comprises a reservoir, and further wherein the array comprises a patch and the reservoir is configured to be attached to the patch after the patch is affixed to skin.

27. (Previously presented) The system of claim 26, wherein the plurality of micro-perforators includes a drug that can be released as the micro-perforators dissolve.

28. (Canceled)

29. (Canceled)

30. (Currently amended) A system for delivering a substance into tissue comprising:
a patch including
· a basal layer having a first side and a second side, and
· a plurality of micro-perforators projecting from the first side of the basal layer and formed from a solid matrix material that can be dissolved in the tissue to form channels for

delivering a substance into the tissue by diffusion; and

a reservoir, including a solvent effective to dissolve the matrix material upon contact with the solvent over a time interval of between a few tens of seconds and a few hours after the micro-perforators have been inserted into a patient's body, wherein the reservoir that can be attached to the second side of the basal layer.

31. (Previously presented) The system of claim 30 wherein the matrix material comprises the substance.

32. (Previously presented) The system of claim 30 wherein the reservoir further includes the substance.

33. (Previously presented) The system of claim 32 wherein the matrix material comprises a second substance.

34. (Previously presented) The system of claim 30 wherein the substance is a drug.

35. (Previously presented) The system of claim 30 wherein the matrix material comprises a polymer.

36. (Previously presented) The system of claim 30 wherein the matrix material comprises a carbohydrate derivative.

37. (Previously presented) The system of claim 30 wherein the matrix material is water-soluble.

38. (Previously presented) The system of claim 30 wherein the reservoir is integrally attached to the second side of the basal layer.

39. (Currently amended) A method for delivering a substance into tissue comprising:
forming a plurality of channels into the tissue by

inserting a plurality of micro-perforators formed of a solid matrix material into the tissue,
and

dissolving the solid matrix material to form the plurality of channels, wherein the matrix
material dissolves over a time interval of between a few tens of seconds and a few hours after the
micro-perforators have been inserted into a patient's body; and

delivering the substance through the plurality of channels by diffusion.

40. (Previously presented) The method of claim 39 wherein inserting the plurality of micro-perforators into the tissue includes affixing a patch to the tissue.

41. (Previously presented) The method of claim 40 wherein dissolving the matrix material includes

attaching to the patch a reservoir of a solvent effective to dissolve the matrix material, and
delivering the solvent from the reservoir to the micro-perforators.

42. (Previously presented) The method of claim 39 wherein dissolving the matrix material includes delivering a solvent to the matrix material.

43. (Previously presented) The method of claim 39 wherein dissolving the matrix material is effective to deliver a second substance into the tissue.

44. (Previously presented) The method of claim 39 wherein the micro-perforators are attached to a basal layer and the method further comprises removing the basal layer from the tissue after the micro-perforators have dissolved.

45. (Previously presented) The method of claim 39 that further comprises activating a perforation activation mechanism that is effective to insert the plurality of micro-perforators to a predetermined distance into the tissue.